ESCORT MEMORY SYSTEMS
A DATALOGIC GROUP COMPANY

HS500-Series Read/Write Antennas

Features

- 3000 Bytes/Second Data Transfer Speed — Reading and Writing
- Epoxy Encapsulated
- Access Tags through Virtually Any Non-Conductive Material
- Unaffected by Paint, Dust, Dirt and Solvents
- High Immunity to Metal
- Small and Rugged for Easy Installation

Applications

- Material Handling
- Sortation Systems
- Work-in-Progress Monitoring
- Quality Control

Use With

- HS200R-Series Tags
- HS200XL-Series Tags
- HS200LR-Series Tags
- HS850B Serial Eurocard Controller
- HS880B-Series Read/Write Controller
- HS900 PC-Bus Read/Write Controller
- CM12 DeviceNet Module
- CM21 InterBus-S Module
- CM30-Series Profibus Modules
- CM40-Series Modbus Plus Modules
- CM52 Remote I/O Module
- CM900 / CM1000
- CM1746 RFID Module

Escort Memory Systems® (EMS) offers a complete family of field-proven Read/Write Radio Frequency Identification (RFID) products and network interface modules. The system consists of Tags, Antennas and Controllers. Tags can be attached to a product or its carrier and act as an electronic identifier, job sheet, portable database, or manifest. Tags are read and updated via an EMS Antenna through any non-conductive material while moving or stationary.

Technical Description

The HS500-Series Antennas connected to an Escort Memory Systems' Controller provides a very convenient interface between a host computer or programmable Controller and the data in EMS Tags.

The HS500 Antenna contains all the circuitry necessary to convert the digital signals received from the Controller to high-speed RF signals for the Tags, and subsequently, convert the RF signals from the Tags back into digital signals for the Controller.

The compact size and long-range of the Antenna makes it ideal for use in factory automation environments where space is at a premium. For greater mounting flexibility, the HS500 is available in both end-emitting and face-emitting versions. To further ease installation, the distance from the Controller card to the Antenna can be up to 4,000 feet. This is advantageous because the Controller portion of the RFID system is then afforded extra protection from noise that could be generated by electrical equipment positioned near the Read/Write station. Connection to the Controller is via a quick disconnect circular connector. Antennas can be replaced on the line without changing any wiring.

COMPACT SIZE, LARGE MEMORY AND RAPID DATA TRANSFER SPEED

The Antenna is equipped with a two-color status LED, indicating when power is present and the Antenna is or is not transmitting.

The Antenna is a solid state device, without moving parts or mechanical switches, and configuration is not required prior to installation. It has a metal backplate which helps to distribute stress from the mounting bolts and greatly increases immunity to additional metal in the Read/Write field.

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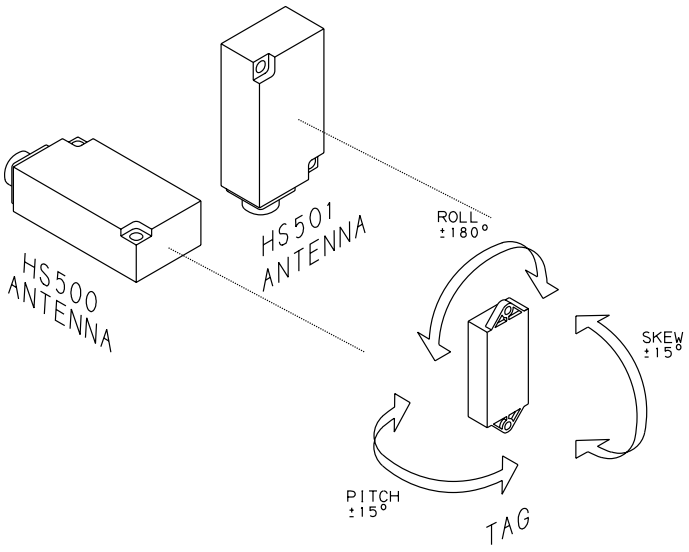
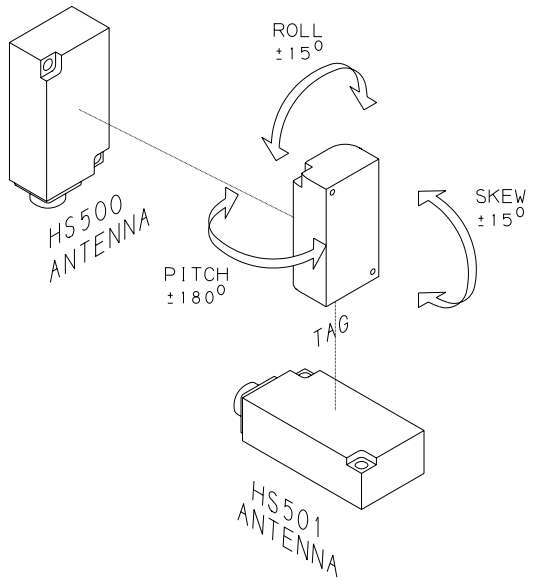
HS500-Series Read/Write Antennas

Electrical	Supply Voltage	20-26VDC
	Max. Current	500mA
RF Interface	Data Transfer Rate	3000 Bytes/Second
Interface With Controller	Max. Cable Length	4000ft. (1200m)
Mechanical Specifications	Dimensions (W x H x D)	4.10 x 2.15 x 1.26in. (104 x 55 x 32mm)
	Weight	13.4oz. (380g)
	Enclosure	ABS Shell, Epoxy-Encapsulated
	Cable	User-Supplied
	Connector	
	HS500	8-Pin Plastic Circular (Mating End Furnished)
	HS500A	6-Pin Metal Circular
	HS501	8-Pin Plastic Circular (Mating End Furnished)
	HS501A	6-Pin Metal Circular
	Indicators	Power/Transmit LED
Environment	Operating Temperature	14° to 120°F (-10° to 49°C)
	Storage Temperature	-40° to 185°F (-40° to 85°C)
	Humidity	Water-Resistant
	Protection Class	NEMA 4X (IP66)

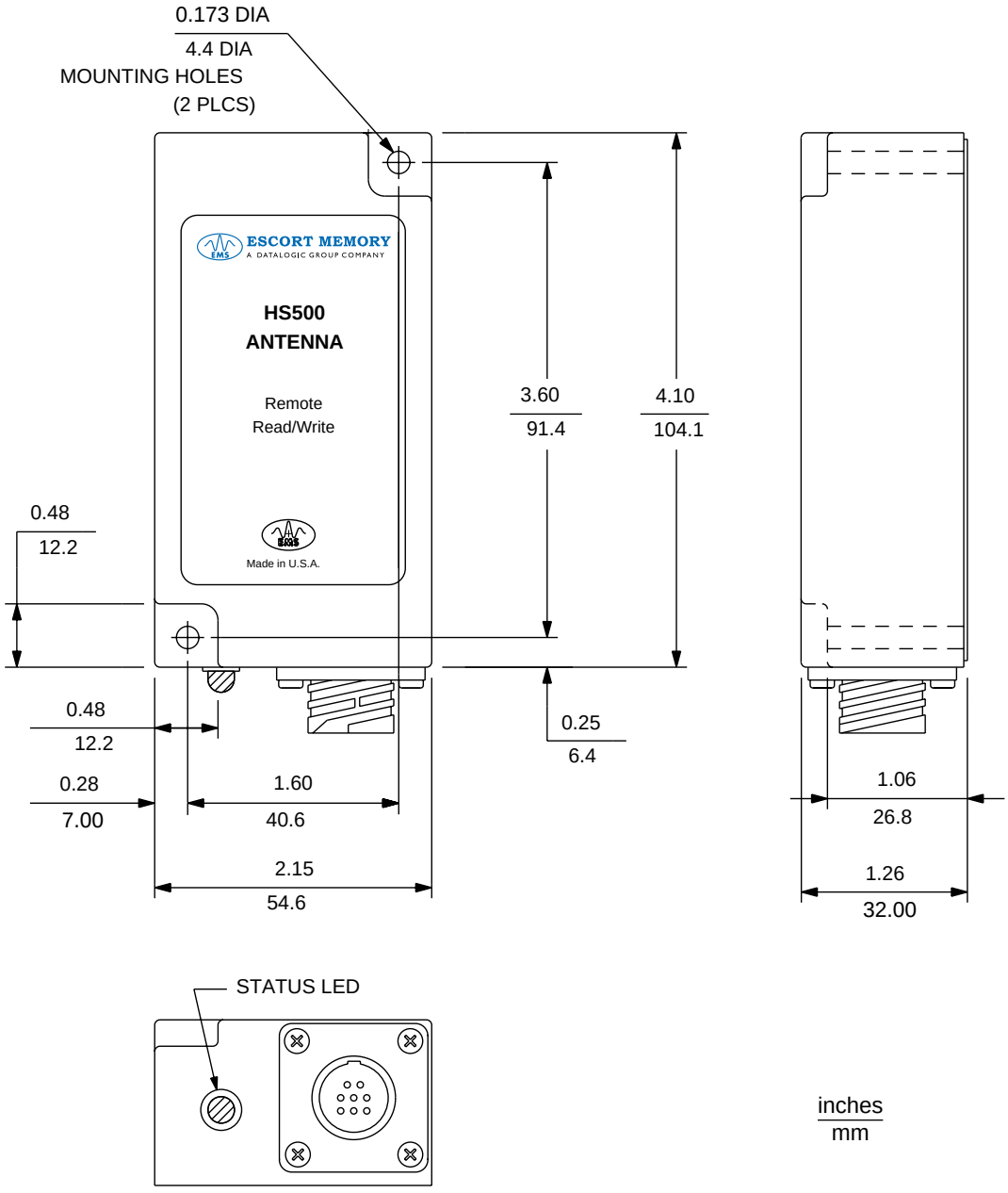
Antenna to HS200R Tag Orientation



Antenna to HS200LR Tag Orientation

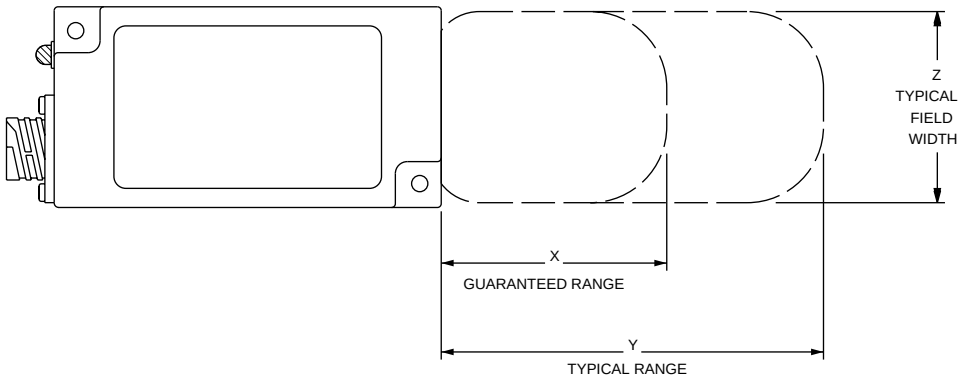


Mechanical Dimensions



HS500-Series Read/Write Antennas

Read/Write Ranges



HS500(A) / HS501(A)-Series Read/Write Antennas

Reading & Writing Ranges with HS200-Series Read/Write Tags (inches/mm)*

		HS200R	HS200XL	HS200LR
HS500(A)	Typ.	5.91/150	5.71/145	18.70/475
	Guar.	4.72/120	4.57/116	15.00/380
HS501(A)	Typ.	5.00/127	5.00/127	13.00/330
	Guar.	4.02/102	4.02/102	10.40/264

* Proximity to metal, CRT devices and other sources of electromagnetic radiation may affect the range of the Antenna.

Available Models

Model	Description
HS500	Small Remote Read/Write Antenna, Standard Plastic Circular Connector
HS500A	Small Remote Read/Write Antenna, Metal Circular Connector
HS501	Small Remote Read/Write Antenna, Face-Emitting, Plastic Circular Connector
HS501A	Small Remote Read/Write Antenna, Face-Emitting, Metal Circular Connector

Accessories

Model	Description
68-5001	Crimping Tool for 8-Pin Circular Connector (Amp 169341-1)
10-7026	8-Pin Plastic Mating Connector for HS500-Series Antennas (1 Kit Ships with Antenna)
46-1291	Straight 6-Pin Circular Plug for HS500A-Series Antennas (Does Not Ship with Antenna) (Amp 97-3106-A-14S-6S-608)
46-1292	Right Angle 6-Pin Circular Plug for HS500A-Series Antennas (Does Not Ship with Antenna) (Amp 97-3108-A-14S-6S-608)
46-5073	Cable Clamp for 46-1291 and 46-1293. Max. Cable O.D. 11/32″ (Amp 9767-14-6)

Ordering Notes

The Mating Connector Kit for the HS500/HS501 Antennas Ship with the Units. The Mating Connector Kit for the HS500A/HS501A Antennas Must Be Purchased Separately.